

**Listing of the Claims:**

The following is a complete listing of all the claims in the application, with an indication of the status of each:

I (Currently Amended) A car rental system comprising:

a fleet of cars, each of having an in-car access controller which is operable only when a valid digital key is presented to the car, ~~and each of said fleet of cars being capable of invalidating a digital key;~~ and

a management system for handling reservation and car return, said management system including: a reservation server and key generation system for generating digital keys for renters users of the car rental system, said key generation system storing a digital key on a portable storage device provided to a user of the car rental system, the digital key specifying a starting date and time of a rental transaction and identifying the car the digital key is for and personal information identifying the user and the combined information digitally signed using a private key of the reservation server as a digital signature of the reservation server;

the in-car access controller including means for reading the digital key on the portable storage device and verifying the digital signature of the reservation server and input means for receiving information identifying the user and comparing entered personal information with personal information identifying the user of the digital key, the in-car access controller further including means for invalidating the digital key if the entered personal information does not match the personal information identifying the user of the digital key but, otherwise, activating instruments which the user is authorized to have access to, the in-car access controller being responsive to a request from the user to return the car and including means for obtaining car status information, including fuel level, mileage, current time and car ID, and generating a return packet by combining car status information and current digital key and signing the return packet using a private key of the in-car access controller as a digital signature and saving the return packet on the portable storage device; and

a key return system for processing digital keys returned by renters, the key return system invalidating the current digital key and printing a receipt for the user wherein there exists no data communication link between the fleet of cars and the management system.

2. (Previously presented) The system in claim 1, further comprising a parking lot guarded by a security gate, said fleet of cars being parked within confines of said parking lot when not rented by a renter of the car rental system, said security gate only opening when a valid digital pass is presented by a renter of the car rental system.

3. (Currently Amended) The system in claim 4, wherein the management system is accessed by a ~~prospective renter~~ user over a network and the ~~prospective renter~~ user is given a digital key to operate a particular car and a digital pass to open the gate of the parking lot where said particular car is parked, after said ~~prospective renter~~ the user completes a reservation for said particular car, said digital key and digital pass being effective starting from the time specified by said reservation.

4. (Currently Amended) The system in claim 3, wherein the ~~prospective renter~~ user accesses the management system at a kiosk located in the parking lot where the particular car is parked.

5. (Currently Amended) The system in claim 3, wherein the ~~prospective renter~~ user accesses the management system over the Internet.

6. (Currently Amended) The system in claim 3, wherein the key generation system stores a digital key on a portable storage device provided by a ~~prospective renter~~ the user.

7. (Original) The system in claim 6, wherein the storage device is a smart card.

8. (Original) The system in claim 6, wherein the digital key comprises car and user identification (ID) signed by the management system to authenticate the digital key.

9. (Canceled)

10. (Currently Amended) The system in claim 9 ~~1~~, wherein the key return system updates the car status stored at the reservation server ~~invalidation of a valid digital key includes storing car status information relevant to computing by the key return system a receipt for the renter.~~

11. (Currently Amended) A ~~computer-implemented~~ method for operating a car rental system comprising the steps of:

accessing a reservation server by a ~~prospective car renter~~ user of the car rental system to reserve a car;

authenticating the ~~prospective car renter~~ user by the reservation server and, upon the reservation server successfully authenticating the user, prompting the ~~prospective car renter~~ user for the date, time, and location for pickup and return, and ~~the a requested~~ type of car;

checking by the reservation server an availability of a ~~the~~ requested type of car and, if a ~~the requested type of~~ car is available, creating by the reservation server a digital key ~~by for a car, the digital key specifying a starting date and time of a rental transaction and user information identifying the car the digital key is for and personal information identifying the user, combined information of on the digital key being signed using a private key of the reservation server as with a~~ digital signature of the reservation server; and

downloading the digital key to a portable storage device, the portable storage device being used to gain access to a rental car ~~without communication between the rental car and the reservation server;~~

detecting by an in-car access controller insertion of the portable storage device in a slot for receiving the portable storage device;

reading by the in-car access controller the digital key stored on the portable storage device and, if the digital key is not yet invalidated, verifying by the in-car access controller the digital signature of the reservation server on the digital key, and if the digital signature of the reservation server is verified by the in-car access controller, prompting by the in-car access controller the user to enter personal information identifying the user;

checking by the in-car access controller the personal information identifying the user entered by the user against the personal information identifying the user of the digital key and, if the personal information identifying the user entered by the user does not match the personal information identifying the user of the digital key, invalidating the digital key by the in-car access controller, but if the personal information identifying the user entered by the user matches the personal information identifying the user of the digital key, activating by the in-car access controller instruments which the user is authorized to have access to;

upon receiving a request from the user to return the car, obtaining by the in-car access controller car status information, including fuel level, mileage, current time and car ID, and creating by the in-car access controller a return packet by combining car status information and current digital key and signing the return packet using a private key of the in-car access controller as a digital signature, and saving by the in-car access controller the return packet on the portable storage device; and

invalidating the current digital key and printing a receipt for the user.

12. (Original) The method in claim 11, wherein the step of accessing the reservation server is performed via a network.

13. (Original) The method in claim 12, wherein the network is the Internet.

14. (Currently Amended) The method in claim 11, wherein the step of authenticating a ~~prospective car renter~~ user includes the steps of:

prompting the ~~prospective car-renter~~ user to enter a personal identification number (PIN); and

comparing ~~the an~~ entered PIN with a valid PIN for the ~~prospective car-renter~~ user stored in the reservation server.

15. (Currently Amended) The method of claim 44 ~~14~~, wherein the step of creating a digital key comprises the steps of:

computing a hash of the ~~car-renter's~~ user's valid PIN;

combining car and renter identification with the hashed PIN; and

digitally signing the combined information by said reservation server.

16. (Canceled)

17. (Canceled)

18. (Currently Amended) The method in claim 47 ~~11~~, further comprising the steps of:

upon receiving by the car rental system a ~~car-renter's~~ request by the user to return a car, retrieving the return packet from the portable storage device;

verifying a signature on the return packet; and

updating the car status stored at the reservation server and printing a receipt for the ~~car-renter~~ user.

19. (Original) The method in claim 11, wherein the portable storage device is a smart card.

20. (Canceled)